

with regard to its identity; but the specimen exhibited was so imperfect as to leave doubts whether the discovery ought yet to be fully relied on, especially as our botanists have more than once been disappointed in this respect.

BIBLIOGRAPHICAL NOTICES.

A History of Infusoria, living and fossil, arranged according to 'Die Infusionsthierchen' of C. G. Ehrenberg; containing coloured engravings illustrative of all the Genera, and Descriptions of all the Species in that work, with several new ones. By Andrew Pritchard, author of 'Microscopic Illustrations, &c.' 8vo. 1841. Whittaker and Co.

MR. PRITCHARD informs us in his Preface, that "the translation of 'Die Infusionsthierchen' was made for him by Dr. Willshire, who also compared his manuscript of Part II. with that work," and on whose authority he relies for stating that the materials taken therefrom are correctly given. "Since Dr. E.'s volume appeared," he adds, "some discoveries in Fossil Infusoria have been made; these, and the Spermatozoa of plants, unknown in this country, I have introduced. Information derived from other sources is duly acknowledged."

The work is illustrated by twelve large and well-filled plates*, containing more than 500 finely executed and coloured figures, which must greatly recommend it to the student as well as render it attractive to the general reader. Of the drawings, the author informs us, "Those for plate xii. were kindly furnished me by that venerable and distinguished botanist, Dr. Unger of Gratz, and the late eminent microscopic observer, Mr. F. Bauer. Every original drawing has the artist's name mentioned in the description of it, and the others, with few alterations, are from 'Die Infusionsthierchen.' The labour and time occupied in selecting, reducing, arranging and condensing these was far greater than most persons would imagine, and the cost of this undertaking has far exceeded my anticipation; but should it meet with patronage sufficient to repay the outlay, and my health permit, it is my intention to bring out, on another branch of microscopic science, a work of equal extent to the present, materials for which I have been for some time collecting."

The 'Natural History of Animalcules' being out of print, Mr. Pritchard offers the present volume as a preferable substitute for a new edition of that work, in which to introduce the later discoveries. "Dr. Ehrenberg's magnificent and elaborate work, entitled 'Die Infusionsthierchen,' having since appeared, and offering a better classification than Müller's, it has been adopted here. I have only to regret," he adds, "that its distinguished author, or some more competent naturalist than myself, has not presented us with an epitome of it."

"In the description of the families, genera and species, I have not adhered to 'Die Infusionsthierchen,' but only condensed such

* Of which the one attached to our present Number will, except as to colour, serve as a specimen.

portions as appeared desirable, interweaving them with other matter; hence it would be unjust to its author to consider this manual an abstract of it. That work being intended to establish a new classification, and as a book of reference, a large portion of its ample 600 folio pages is occupied in giving the synonyms, in references, and in discussions; these I have omitted, but every species described in that work will be found here, together with many others since discovered. A new system of classification is seldom acceded to wholly at first: that by Dr. Ehrenberg has met with its share of opponents. The principal arguments respecting it will be found herein; so that the student, having both sides of the question before him, will be able to arrive at a fair conclusion."

The work is divided into two Parts. In the First, the general history of infusorial animalcules is treated of, in 34 sections; and Part II. consists of their classification and description, viz. 188 genera, and 732 species. Ehrenberg's late work on the Infusoria of the Chalk Formations* is briefly alluded to in an Appendix, bringing the number of species up to 786.

We are much pleased to find in Mr. Pritchard's volume a very seasonable assistant and acceptable source of information to those who feel an interest in the contributions which the microscope is daily making to the knowledge of nature.

Supplementary remarks on Mr. G. R. GRAY'S 'Genera of Birds.'

Since the publication of my former notice of Mr. Gray's work in the 'Ann. and Mag. of Nat. Hist.' for January last, a few additional observations have occurred to me. Being desirous of rendering this excellent work as extensively useful as possible, by pointing out those minor details which seem to require correction, I do not scruple to add the following criticisms by way of supplement to my former review.

Page 12 of the 'Genera of Birds.' Dr. Horsfield's genus *Eurylaimus* should be written *Eurylæmus*.

P. 72. It is satisfactory to find that the several authors who claim the honour of giving a specific name to the type of *Geococcyx*, may cease from the contention. This bird was first described by Fernandez 191 years ago under the name of *Hoitlallotl* (see Ray, Syn. Av., p. 158), and was recorded by Latham and Gmelin under the name of *Phasianus mexicanus*. It will therefore now stand as *Geococcyx mexicanus* (Gm.).

P. 80. The European species of *Bonasa* should be called *B. betulina* (Scop.) instead of *B. sylvestris* (Brehm.).

P. 83. *Cursorius europæus*, Lath., ought, in point of priority, to be called *C. gallicus* (Gm.).

* Of this record of Prof. Ehrenberg's latest discoveries, with his statement of the important geological inferences to be deduced from them, a translation will immediately appear in the forthcoming Part of the 'SCIENTIFIC MEMOIRS.'

P. 86. *Tigisoma lineatum* (Gm.) ought to be termed *T. braziliense* (Lin.).

The European species of *Nycticorax* should be called *N. griseus* (Lin.). The specific name *gardeni* was originally given to the nearly allied American species, after Dr. Garden of South Carolina.

P. 88. *Aramus scolopaceus* (Gm.) was called *Scolopax guarauna* by Linnæus, and should therefore bear the latter specific name.

Glottis chloropus (Nils.) should be called *G. canescens* (Gm.), being the *Scolopax canescens* of the latter author.

P. 93. The word *ferus* was first used as a specific name for the Wild Goose by Stephens, not by Gmelin, and is therefore subsequent to Meyer's name *cinereus*.

The Wild Swan should be termed *Olor musicus* (Bechst.), as Linnæus did not distinguish it specifically by the name of *ferus*. It may be further remarked, that the characters which distinguish *Olor* of Wagler from *Cygnus* are far too unimportant for generic separation.

P. 94. *Pæcilonitta* should be written *Pæcilonetta*.

The original type of the genus *Querquedula* (Briss.), Steph., is clearly the Garganey (*Anas querquedula*, Lin., *Cyanopterus circia* (Lin.), Eyton), and not the Teal (*Anas crecca*, Lin.). But would it not be better to follow Stephens in uniting the Teals and Garganeys in one genus, *Querquedula*?

P. 96. The specific name *leucocephala*, Scop., is prior to *mersa*, Pall.

Mergus castor, Lin., should be called *M. merganser*, Lin., as the former synonym applied to the female, while the latter name was given to the adult male.

P. 98. Those who adopt Mœhring's genus *Uria* should retain for its type the specific name *grylle*, Lin. But as I consider that Mœhring's work is beyond the pale of the binomial nomenclature, I adopt Stephens's name of *Grylle scapularis*.

Buffon's Pl. Enl. 993 represents the *Thalassidroma oceanica* (Forst.), not *T. pelagica* (Lin.).

P. 100. *Gygis candida* (Forst.) was first published by Sparrman under the name of *Sterna alba*, and the latter specific name ought therefore to prevail.

P. 101. The name *Onocrotalus*, Briss., should be cancelled as a mere synonym of *Pelecanus*, Lin., and a new generic name should be given to the *Pelecanus thagus* of Molina.

H. E. STRICKLAND.

MISCELLANEOUS.

DR. MARTIN BARRY ON FIBRE.

Dr. Barry requests us to add the following, in connexion with his Memoir on Fibre, an abstract of which is given at p. 502.

The "white substance of the nervous fibre," surrounding Remak's "band-like axis," consists of filaments having the remarkable structure above described, and often curiously interlaced with one another, as though each of them had a spiral direction. In examining

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the substance of the optic, olfactory, and auditory nerves, as well as that of the brain and spinal chord, Dr. Barry employed for the most part such as had been preserved in spirit; and, besides using extremely minute portions, he very often avoided adding any covering whatever, the weight of thin mica itself being sufficient to rupture or to flatten this delicate substance, and thus entirely prevent its structure from being seen. In the parts last mentioned, he finds red discs, which pass first into rings, and then into spirals. In fasciculi from the spinal chord, and surrounded by spiral filaments, he met with a "band-like axis," which perhaps corresponds to that of Remak in the nerves: but if so, Dr. Barry's observations go farther even than Remak's. The "axis" described by this observer was found by him to be susceptible of division into filaments. So also is the one described by Dr. Barry. But the latter adds, that each filament is a compound object, which enlarges, and, from analogy, may contain the elements of future structures, formed by division and subdivision, to which no limits can be assigned. The spermatozoa, mentioned in the abstract, were from the epididymis of a person who had died suddenly. The depression noticed in their discoid extremity—corresponding apparently to the "sugient orifice" of some authors—is probably analogous to the source of new substance in other discs. In these examinations, Dr. Barry has generally added to the objects dilute spirit (sp. gr. about 0.940), containing about $\frac{1}{200}$ th of corrosive sublimate. Spirals from the leaf-stalk of the strawberry, after the addition of this reagent, were seen to have divided into parallel filaments having the same structure as those above described. Flax presented a quadruple coil of such filaments. In early states of voluntary muscle also, there were seen double and quadruple coils, evidently produced by the same means—division. Dr. Barry compares the appearance of the vegetable "dotted duct," in its several stages, with that of objects found in mould, in the cornea, in the crystalline lens, and in voluntary muscle; all of which are produced by associations of minute spiral threads. The distribution of the remarkable filaments above described is so universal, that they are found in silk, in the incipient feather, in hair, in the feather-like objects from the wing of the butterfly and gnat, and in the spider's web.

Dr. Barry informs us that he has had the opportunity of showing to several physiologists the principal appearances described in his memoir on fibre. And Professor Owen permits him to state, that he has exhibited to him spirals in voluntary muscle,—muscular "fibrillæ" having a flat, grooved, and compound form,—the filamentous structure of the "white substance in nervous fibre,"—the vegetable spiral becoming double by division,—a coiled filament within red blood-discs,—and the incipient unwinding of the coil in coagulating blood.